

CLAIMS:

1. A color cathode ray tube, that is fitted with a color screen that comprises a glass face panel, a phosphor coating and a UV-reflective layer that is arranged between the glass face panel and the phosphor coating, characterized in that the UV-reflective layer contains colloid particles of an oxygen-containing material, having a grain size $d < 400$ nm.
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2. A color cathode ray tube as claimed in claim 1, characterized in that the thickness s of the UV-reflective layer is between 0.5 and 10 μm .
- 10 3. A color cathode ray tube as claimed in claim 1, characterized in that the mean grain size d_{50} of the colloid particles is less than 200 nm.
4. A color cathode ray tube as claimed in claim 1, characterized in that the grain-size distribution is heterodisperse.
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5. A color cathode ray tube as claimed in claim 1, characterized in that the oxygen-containing material of the colloid particles is selected from the group of oxides having the general formula $M^1_2O_3$ where $M^1 = \text{B, Al, Sc, La or Y}$, and having the general formula M^2O_2 where $M^2 = \text{Si, Ge, Sn, Ti, Zr or Hf}$, and from the group of phosphates
20 having the general formula $M^3_xPO_3$ where $M^3 = \text{Li, Na or K}$ and $0 < x \leq 1$, and having the general formula M^1PO_4 where $M^1 = \text{B, Al, Sc, La or Y}$.
6. A color cathode ray tube as claimed in claim 1, characterized in that SiO_2 is used as the oxygen-containing material.
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7. A color cathode ray tube as claimed in claim 1, characterized in that the mean refractive index of the UV-reflective layer in the visible range of the spectrum is less than the refractive index of the material of the glass face panel.